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Dissertação orientada pela Professora Maria Manuela de Amorim Calheiros

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Abstract

Self-discrepancy theory predicts that a larger self-discrepancy magnitude - the difference between what a person believes to be and what they want to be - leads to worse affect, which is supported by prior empirical evidence. Additionally, self-discrepancy theory, assumes this association to be present at an early age. The first goal of this study was to empirically test this assumption for the first time, during middle childhood (8-10 years of age), resorting to a multidimensional view of self-representations. Moreover, sense of power could act as a moderator of the aforementioned relation between self-discrepancy, ideal-self-representations and affect, since ideal-self-representations are usually conceptualized as superordinate personal goals, and sense of power has been shown to be a facilitator of goal-seeking. The second goal of this study consisted on testing this possibility. Self-report measures were employed to collect the data (N = 236), which was analyzed through various multiple regression analyses. Regarding the results, although self-discrepancy was shown to significantly predict affect, this was misleading. A separate analysis of self-discrepancy's components revealed that the apparent effects of self-discrepancy, were caused by only one of its components - actual-self-representations. Furthermore, sense of power moderated the relation between social ideal-self-representations and affect. More specifically, sense of power seems to be associated to a general reduction of negative affect. This pattern of results highlights the importance of actual-self-representations during middle childhood, calls into question self-discrepancy theory's developmental postulates and showcases sense of power as a variable to consider in the context of self-representations and, particularly, negative affect.

Keywords: Self, Self-discrepancy theory, Sense of power, Affect, Children

Resumo Alargado

Desde o momento em que acordamos, até adormecer, estamos conscientes de nós próprios. Durante esse período, todos nós produzimos crenças sobre o que somos. Feios, bonitos, estúpidos, espertos, sociáveis ou introvertidos. Estas crenças compõem a parte cognitiva do *self* e são, usualmente, denominadas de auto-representações (Oyserman et al., 2012). Estas servem um papel motivacional importante, e são conceptualizadas como objetivos pessoais superordenados (Morf & Mischel, 2012), estando organizadas em várias dimensões (Harter, 2012; 2015; Silva et al., 2016). As auto-representações, por sua vez, não dizem respeito apenas ao presente. Estas também podem consistir múltiplos *selves* possíveis, sejam estes temidos ou idealizados (Higgins, 1987; Markus & Nurius, 1986; Oosterwegel & Oppenheimer, 1993). Para além disto, evidências empíricas já demonstraram que padrões específicos de auto-representações podem apresentar efeitos detrimentais nas emoções/afeto, em adultos (Mason et al., 2019).

A teoria da auto-discrepância (Higgins, 1987; 1989a; Moretti & Higgins, 1990) tem vindo a mostrar-se importante na exploração da relação entre auto-representações e afeto. A formulação teórica desta teoria propõe que maiores diferenças entre o que as pessoas creem ser, no presente (auto-representações atuais), e o que gostariam de ser, idealmente, (auto-representações ideais), leva a piores níveis de afeto. Ou seja, enquanto que discrepâncias pequenas podem ser úteis para providenciar motivação aos indivíduos, paradoxalmente, magnitudes de discrepância muito elevadas, podem, pelo contrário, produzir desconforto afetivo e diminuir os níveis de motivação (Higgins, 1989b). Inúmeras evidências empíricas atestam a validade desta teoria e verificam a relação entre auto-discrepância e afeto (Barnett et al., 2017). No entanto, esta teoria prevê que a relação entre discrepância e afeto já deveria estar presente durante a infância, pois esta deriva de uma mistura de temperamento (Bowlby, 1969) e de interações precoces entre o cuidador e a criança (Higgins, 1987, 1989b). Se esta proposta

for válida, seria de esperar que esta relação e a estrutura do *self* fosse relativamente estável durante a vida adulta, o que se verifica empiricamente (Strauman, 1996). Porém, os pressupostos desenvolvimentistas desta teoria nunca foram testados, em crianças. Dessa forma, este estudo pretende averiguar se estes já se verificam durante a infância média (8-10 anos de idade; Harter, 2012).

Adicionalmente, o papel do sentido de poder, como moderador da relação acima descrita, será, paralelamente, averiguado. A importância desta variável torna-se óbvia quando, tendo em mente a conceptualização de auto-representações ideais como objetivos superordenados (Morf & Mischel, 2012), se verifica que o sentido de poder já mostrou facilitar a procura de objetivos (Guinote, 2007a; Guinote & Kim, 2020) e melhorar o afeto em alguns casos (Berdahl & Martorana, 2006), mas não noutros (Weick & Guinote, 2008). É esperado que o sentido de poder atenue os esperados impactos negativos da magnitude da auto-discrepância e auto-representações ideais, no afeto.

Metodologicamente, este estudo distingue-se dos estudos usualmente realizados sobre auto-discrepância, pois, não só recorre a uma abordagem nomotética, como analisa, individualmente, as contribuições distintas de ambas as componentes da auto-discrepância (auto-representações atuais e ideais). Para além disso, recorre a uma medição multidimensional das auto-representações, focando-se nas dimensões relevantes durante a infância média, sendo estas as representações sociais e instrumentais. Por fim, também a variável do afeto, será analisada recorrendo a uma análise das suas componentes positivas e negativas. Estas considerações permitirão obter resultados pormenorizados relativamente às variáveis em estudo.

Neste estudo, foi (H1 e H2) hipotetizado que a auto-discrepância e que auto-representações ideais seriam preditoras de piores níveis de afeto. Pelo contrário, era expectável que (H3) um aumento da positividade das auto-representações atuais, predizesse melhores

níveis de afeto. Em relação ao sentido de poder, era expectável que (H4 e H5) um aumento dessa variável levasse a auto-representações atuais e ideais mais positivas. Para além disto, era expectável (H6 e H7) que o sentido de poder moderasse o efeito da auto-discrepância e de auto-representações ideais no afeto, reduzindo o seu impacto negativo. (H8) Particularmente, no que dizia respeito à componente negativa do afeto. Por fim, a influência do sentido de poder deveria ser superior na (H9) dimensão social de auto-representações, comparativamente à dimensão instrumental das mesmas.

A amostra consistiu em 236 crianças, do terceiro e quarto anos do ensino básico. Para além disto, estas habitavam em zonas rurais e urbanas e tinham idades compreendidas entre os 8 e os 11 anos. Os instrumentos utilizados consistiam em medidas de auto-relato. De forma a medir as auto-representações - atuais e ideais – e a auto-discrepância dos participantes, foi utilizado o *Self-Representations Questionnaire for Adolescents* (SQRA; Silva et al., 2016). O instrumento utilizado para medir o afeto, tanto a sua componente positiva, como negativa, foi o *Positive and Negative Affect Schedule for Children Shortened Version* (PANAS-CSV; Ebesutani et al., 2012). Por fim, o instrumento utilizado para medir o sentido de poder dos participantes foi o *Relationship-Specific Index of Personal Sense of Power* (RSI; Anderson et al., 2012). Possíveis influências de género, escalão social e idade foram controladas. Todos os pais ou guardiães legais dos participantes consentiram à sua participação. As crianças assentiram à participação no início da sessão, tendo sido informadas de que as suas respostas eram anónimas e confidenciais e que poderiam interromper a sua participação a qualquer momento.

Em primeiro lugar, de forma a testar as primeiras hipóteses (H1 a H5), relativas às relações diretas, foram realizadas várias regressões lineares múltiplas, consistindo num preditor único e variáveis sociodemográficas relevantes (controlo). De forma a testar as restantes hipóteses, vários modelos de moderação foram analisados.

Os resultados obtidos foram os seguintes. No que diz respeito a H1, como previsto, a auto-discrepância demonstrou predizer negativamente o afeto. No entanto, no que diz respeito a H2, ao contrário do que era esperado, as auto-representações ideais não demonstraram qualquer efeito preditor no afeto. Relativamente à H3, as auto-representações atuais mostraram, como hipotetizado, predizer positivamente o afeto. Este conjunto de evidências colocam em causa os pressupostos desenvolvimentistas da teoria da auto-discrepância, pois, apesar de, à primeira vista, o papel da auto-discrepância ser congruente com o previsto, essa evidência é apenas aparente. Aliás, esse efeito deveu-se apenas ao papel das auto-representações atuais, que, sendo, em conjunto com as auto-representações ideais, uma das componentes da auto-discrepância, foi a única a apresentar qualquer impacto. Logo, é possível concluir que, nesta faixa etária, as auto-representações atuais apresentam um papel consideravelmente mais importante do que as representações ideais e que é necessário rever os pressupostos desenvolvimentistas da teoria da auto-discrepância.

No que diz respeito às hipóteses relativas ao papel do sentido de poder, verificou-se o seguinte. H4 e H5, que correspondiam às previsões de que, um sentido de poder mais elevado seria preditor de auto-representações atuais e ideais mais elevadas, foram apoiadas pelos dados. Adicionalmente, era expectável que o sentido de poder moderasse, H6 e H7, a relação entre auto-discrepância e auto-representações ideais e afeto. Enquanto que nenhum efeito foi encontrado no que diz respeito à auto-discrepância, o sentido de poder serviu como moderador da relação entre auto-representações sociais ideais e afeto negativo. Em geral, estes resultados apoiam H7, H8 e H9, que previam que o papel do sentido de poder seria maior na dimensão social das auto-representações e para a componente negativa do afeto.

Em suma, o padrão de resultados encontrado demonstra que a associação entre auto-representações e afeto é bastante complexa, mesmo durante a infância média. Os pressupostos da teoria da auto-discrepância foram colocados em questão, enquanto que a importância das

auto-representações foi destacada. Efeitos diretos de auto-representações ideais no afeto parecem ser reduzidas. Contudo, moderadores potenciais desta relação não podem ser ignorados, nem as especificidades dessa associação. De facto, este estudo demonstrou que o sentido de poder pode agir como um forte moderador da relação entre auto-representações ideais e afeto negativo, o que pode ser extremamente relevante para futuras intervenções na área do afeto. Por fim, é esperado que este trabalho informe futura investigação nos tópicos da auto-discrepância, afeto e sentido de poder, tanto em crianças como em adultos.

Introduction

From the moment we wake up, until falling asleep, we are self-aware, conscious of ourselves, self-feeling (Cooley, 1902; James, 1892/1984). Everyone holds beliefs about their own characteristics. Ugly, beautiful, dumb, smart, sociable or socially-awkward, these beliefs are the cognitive part of the Self and are usually referred to as self-representations (SRs; Oyserman et al., 2012). SRs hold an important motivational role (Markus & Nurius, 1986), as they are considered superordinate personal goals (Morf & Mischel, 2012) and are organized in multiple domain-specific dimensions (Harter, 2012; 2015; Silva et al., 2016). SRs are not circumscribed to the present. Individuals can construct and access multiple possible selves, such as feared or idealized ones (Higgins, 1987; Markus & Nurius, 1986; Oosterwegel & Oppenheimer, 1993). Additionally, specific patterns of SRs have been found to produce deleterious consequences on affect, in adults (Mason et al., 2019). More specifically, vast empirical evidence supports self-discrepancy theory's prediction that a higher self-discrepancy (SD) magnitude - the difference between what a person believes to be (actual-SRs) and what they want to be (ideal-SRs) - leads to worse affect (Barnett et al., 2017; Higgins, 1987; Moretti & Higgins, 1990). Affect, in turn, is an extremely important variable, being one of the determinants of subjective well-being - sometimes considered a measure of happiness (Diener, 2009).

However, despite the recognition that higher SD magnitudes lead to worse affect in adults, the relation between SD and affect has never been studied during childhood, particularly during middle childhood. Furthermore, efforts to reduce SD magnitude and its deleterious effects have been rare and inconsistent (Crane et al., 2008; Ivtzan et al., 2011). One variable that could potentially reduce the negative impact of SD magnitude is sense of power, as it has been shown to facilitate goal-seeking (Guinote, 2007a; Guinote & Kim, 2020) and to improve affect in some cases (Berdahl & Martorana, 2006), but not others (Weick & Guinote, 2008).

Yet, this variable has seldom been studied during childhood, and never in the context of self-discrepancy theory (SDT; Higgins, 1987; 1989a; Moretti & Higgins, 1990). Consequently, the present study has two general goals. First, testing SDT's assumption that the relation between SD magnitude and affect is already present during childhood. Secondly, to study if sense of power acts as a moderator of that relation, potentially reducing the deleterious effects of increased SD magnitude on affect.

The components of SD magnitude are, basically SRs, these are described as "cognitive generalizations about the self, derived from past experience, that organize and guide the processing of the self-related information contained in an individual's social experience" (Markus, 1977, p.63). SRs are also multidimensional cognitive beliefs (Harter, 2015; Higgins, 1987; Markus & Wurf, 1987) which tend to aggregate in multiple domain-specific dimensions, such as instrumental, social, emotional, intelligence and physical appearance (Harter, 2012; 2015; Silva et al., 2016). In addition, individuals can project themselves into the future and imagine multiple possible selves, some feared, some idealized (Higgins, 1987; Markus & Nurius, 1986; Oosterwegel & Oppenheimer, 1993). Imagined possible selves have been an important concept linking the cognitive part of the self (self-representations) with its motivational (Markus & Nurius, 1986) and affective components (Higgins, 1987).

Understanding the link between the cognitive and affective part of the self is a necessity, since affect has been associated to numerous important variables and shows significant temporal stability in young adults (e.g., correlations over the span of 7.5 years from 0.4 to 0.45; Watson & Walker, 1996). Besides being one of the determinants of subjective well-being (Diener, 2009), affective scales have demonstrated high degrees of predictability towards anxious and depressive symptoms (Al Nima et al., 2013; Watson & Walker, 1996). Moreover, affect has shown to influence: the likelihood of individuals to contract certain illnesses (Cohen

et al., 1993); longevity both in healthy and diseased samples (Chida & Steptoe, 2008); and even the amount of health complaints made by hospital patients (Watson & Pennebaker, 1989).

A particularly prolific theory relating SRs and affect (Mason et al., 2019) has been SDT (Higgins, 1987; 1989a; Moretti & Higgins, 1990). SDT's theoretical formulation posits that the gap between what people believe they are (actual-SRs) and what they want to be (ideal-SRs), influences affect. Ideal-SRs are considered to be self-guides, acting as affectively relevant self-evaluation benchmarks (Strauman, 1996). SDT proposes that, while mild discrepancy magnitudes, between actual and ideal-SRs, may be useful in providing motivation, great magnitudes may, paradoxically, decrease motivation and cause a significant amount of psychological distress (Higgins, 1989b). Indeed, a vast amount of empirical research has stemmed from this theory, providing significant insights regarding the harmful effects of SD magnitude. Actual:ideal discrepancies have been found to positively correlate to increased levels of sadness in undergraduates and to be inversely correlated with feelings of joviality and self-assurance (Barnett et al., 2017). Furthermore, numerous correlations of actual:ideal SD magnitudes with psychopathological outcomes have been found, such as: borderline personality disorder psychological characteristics (Parker et al., 2006); paranoid and depressive symptoms (Hartmann et al., 2014; Higgins, 1987); hopelessness and suicidal ideation (Cornette et al., 2009). Conversely, negative correlations have been found regarding positive affective states. For example, lower discrepancy magnitudes lead to more contentment, cheerfulness (McIntyre & Eisenstadt, 2011), and self-esteem (Moretti & Higgins, 1990).

In addition to predicting that higher SD magnitudes lead to worse affect, SDT posits that it is an interplay between temperament (Bowlby, 1969) and early caretaker-child interactions that shapes most of an individual's self-structure (Higgins, 1987; 1989b). A logical consequence of that proposal is that SD and its magnitude should be a relatively stable characteristic (Strauman, 1996). In fact, empirical evidence seems to lend support to that

prediction. Not only were specific self-guides associated with parenting styles predicted by SDT (in a retrospective paradigm; Manian et al., 1998), but also, a high degree of stability relative to the magnitude and importance placed in specific self-guides was found (Strauman, 1996; Watson et al., 2010), despite significant variability in the content of actual-self-representations. Consequently, SD appears to be a highly stable characteristic, and this has led some authors to liken it to a personality predisposition (Strauman, 1996), with specific neural correlates (Shi et al., 2016). However, SD's impact on affect has never been studied in children. Only indirect evidence, linking social SD to loneliness in adolescence (Kupersmidt et al., 1999) and one retrospective paradigm study with adults (Manian et al., 1998) are available.

Despite vast empirical evidence supporting early SDT's theoretical predictions, one controversial aspect of this theory has been the way to effectively measure it. Higgins (1987) argued that the only way to measure SD was through idiographic approaches, where participants were asked to self-generate their ideal and actual SRs. In that approach, the measure of SD magnitude consisted on the number of matches and mismatches between them, i.e, more matches, smaller discrepancies and vice-versa. However, recent meta-analytic evidence (Mason et al., 2019) shows that nomothetic approaches are more efficacious, despite some authors defending that both nomothetic and idiographic measures are equally valid (McDaniel & Grice, 2008). Nomothetic approaches consist of providing a list of attributes to the subjects, who have to rate how much they actually possess (actual-SRs measure) or would ideally like to possess (ideal-SRs measure) such attributes. The assertion that nomothetic approaches are superior (Mason et al., 2019), leads to multiple conclusions. First, nomothetic methods should be employed when studying SD. Secondly, the measurement of actual and ideal SRs must be compatible and the same list of attributes must be used, in order to allow an accurate measurement of SD magnitude. Finally, SD magnitude is a composite measure, which,

despite providing important data, may obscure specific contributions of both actual and ideal-SRs.

As mentioned, the first goal of this study is to empirically test whether increased SD magnitudes already have a deleterious impact on affect, during childhood. Two questions arise from this goal. First, bearing in mind that the development of the content of SRs follows a well-studied developmental path (Harter, 2012; 2015), exactly at what childhood stage should this prediction be tested? Secondly, considering that self-representations are organized in multiple domain-specific dimensions (Silva et al., 2016), whose relative importance changes with age (Galambos et al., 2009), which dimensions should be the object of analysis?

Attempting to answer the first question, middle childhood (8-10 years of age; Harter, 2012) seems to be a good stage at which to study SDT's postulates, for multiple reasons. Children start developing their domain-specific SRs around these ages, their self-appraisals become more realistic (Harter, 2012; Salley et al., 2010), and they become able to construct ideal-SRs (Harter, 1998). Importantly, development during this period can significantly affect adolescence and adulthood outcomes (Huston & Ripke, 2006). At this age, the importance of social approval and, as a consequence, a perception of one's social status and abilities, emerges (Harter, 2007). These characteristics are complemented by the development of the ability to hold seemingly contradictory SRs, for example, one child (in middle childhood) can consider herself to be great at Math and terrible at other subjects, enjoy an elevated social status with some friends and be ignored by others (Harter, 2012; Harter et al., 1997). All of these factors allow for the study of SRs and SD at this age. On the contrary, the study of SD on younger children would probably prove unsuccessful as these are characterized by an extreme positivity on their accounts of actual-SRs (Harter, 2012; 2015), which becomes more negative and realistic with age, as of middle childhood (Harter, 2008). This would probably lead to rather minute SD magnitudes reported by younger children, making it almost impossible to accurately

study SD. Finally, the attempt to empirically test the developmental postulates of SDT would benefit from the study of the youngest possible sample, which excludes older samples from consideration.

Concerning the second question, regarding the specific SRs dimensions to be analysed, middle childhood is characterized by an increased importance of non-family social environments, especially contexts involving interactions with school-peers (Isabella & Diener, 2010). On top of that, holding negative social SRs at this age is linked to diverse detrimental relational outcomes (Salmivalli & Isaacs, 2005). Indeed, the need for social approval develops at this stage and becomes an important aspect of SRs (Harter, 2007). Another relevant SRs' dimension, at this stage, is the instrumental domain (Silva et al., 2016), composed of attributes such as untidy, organized, well-behaved and responsible. An empirical study, including children (as young as 8 years old) and adolescents, confirmed that the instrumental dimension applies and is relevant at this age (Silva & Calheiros, 2020). Finally, not only are children capable of establishing instrumental relationships (Harter, 2008), during this developmental period, but they also desire the acquisition of competencies valued by their culture and immediate socializing figures (Isabella & Diener, 2010). These expectations, that children must meet, such as being productive, somewhat obedient and disciplined (Willson, 2019), overlap with the attributes of the instrumental self-dimension (e.g., well-behaved, organized, responsible). This underscores the importance of instrumentality as a central dimension of children's SRs.

As mentioned before, the second main goal of this study concerns power as a moderator of the aforementioned association between SD and affect. Power is, often, theoretically conceptualized as an individual's potential ability to influence others in psychological meaningful ways (French & Raven, 1959; Guinote, 2015; Keltner et al., 2003). This definition, consequently, implies that power is a social-relational concept (Anderson et al., 2012;

Emerson, 1962). However, some authors conceptualize power as a more general concept, representing individuals' general ability to achieve self-relevant goals, whilst still encompassing a relational component (Conger & Kanungo, 1988; Pratto, 2016). Despite the possible value of the latter conceptualization, this work will focus on the former, because, not only has it been more empirically studied, but also because it emphasizes the social component of power, which is in line with one of the SRs dimensions (social) found to be relevant during middle childhood, and an object of analysis in this study. Furthermore, sense of power is broadly defined as the perception of one's ability to influence another person or other people (Anderson et al., 2012) and has been shown to mediate the effects of actual power (Fast et al., 2012). This evidence implies it is an individual's perception about the "amount" of power he holds that has an impact on other variables and, not necessarily, the actual power he holds. Consequently, sense of power is often used in research as a substitute variable for actual power (Fast et al., 2012).

The relevance of power to the study of SRs, SD and affect, manifests in various ways. When it comes to actual-SRs, power has been shown to have an impact on beliefs people hold about themselves (Guinote, 2017). Power holders show increased levels of confidence, optimism and self-esteem in multiple domains (Briñol et al., 2007; Fast et al., 2009; Fast et al., 2012; See et al., 2011). On top of that, experiencing power leads to a more authentic self-expression (Guinote et al., 2012; Guinote & Chen, 2017), whether it is related to chronic predispositions or in line with contextual affordances and momentaneous intentions (Guinote, 2007b; 2008; Guinote et al., 2012). Therefore, increased sense of power could lead to more positive actual-SRs.

Experiencing power is also theorized to lead to a generalized increase in activation (see BAS; Gray, 1990; Keltner et al., 2003) and, more specifically, to an increased drive to achieve internally relevant goals (Guinote, 2017). Empirical evidence pointing to the impact of power

on higher approach, goal-related, motivation is vast, both from behavioral studies (Ferguson et al., 2010; Galinsky et al., 2003) and from neurobiological research on dopamine (which has been shown to be linked to dominance; Berridge, 2007; Kaplan et al., 2002; Salamone & Correa, 2012). Furthermore, when it comes to goal achievement and pursuit, power increases the ease with which individuals set goals (Guinote, 2007a). That may be explained by a reduction of the anticipated threats of possible losses (Inesi, 2010), which, in the case of goal-seeking and setting, may be a failure to achieve goals themselves, or by the documented assertion that powerful individuals recall less goal-constraining information than powerless ones, while recalling the same amount of goal-facilitating information (Whitson, 2013). Additionally, power has been shown to increase counterfactual thought after failure (thinking about what caused failure; Scholl & Sassenberg, 2014), which has been shown to enhance subsequent performance. In sum, power seems to be a tool, or at least, a facilitator of an individual's fight to achieve its own personally relevant goals (Guinote & Kim, 2020).

Considering power in this light, its relevance for SD becomes clear. As mentioned earlier, SD is the gap between what an individual believes they are (actual-SRs) and what they want to be (ideal-SRs). Furthermore, according to SDT, as the magnitude of that gap increases, affect worsens (Higgins, 1987; 1989a). Therefore, it is expected that power, by being an "intensifier of goal-related approach motivation" (Guinote, 2017, pag. 356), will lead powerful individuals to have more ambitious ideal-SRs, as ideal-SRs are usually viewed as (superordinate) personal goals (Markus & Nurius, 1986; Morf & Mischel, 2012). At first glance, by being expected to lead to more ambitious ideal-SRs, power would lead to bigger SD magnitudes, which, in turn, could have harmful consequences (e.g., McIntyre & Eisenstadt, 2011). However, sense of power could also act as a moderator of the relation between SD and affect, reducing its deleterious effects.

As mentioned, affect is negatively impacted by higher SD magnitudes in adults (e.g., Higgins et al., 1986). Furthermore, power has been shown to reduce some known risk factors. One of the variables that mediates the impact of SD on affect is hopelessness (Cornette et al., 2009), such that higher SD magnitudes can lead to hopelessness, and, experiencing hopelessness, leads to worse affect. In turn, power has been shown to increase self-confidence, optimism and self-esteem (Briñol et al., 2007; Fast et al., 2009; Fast et al., 2012; See et al., 2011), which, consequently, could reduce hopelessness (Yang & Clum, 1994), or act as a protective factor from its negative consequences (Abela, 2002). Additionally, rumination could be a moderator variable, enhancing the negative effects of SD (Jones et al., 2009; Jones et al., 2013), and power has been shown to reduce rumination in some instances (Karremans & Smith, 2010). On the other hand, resilience seems to be a protective factor from SD's negative affective impacts (Gürcan-Yıldırım & Gençöz, 2020) and, also, enhanced by power (DeWall et al., 2011; Guinote, 2007a) in the context of goal-seeking. Furthermore, power has been shown to improve affect in some cases (Berdahl & Martorana, 2006; Keltner et al., 1998; Langner & Keltner, 2008), prompting Keltner and collaborators (2003) to consider enhanced positive affect (PA) as a core characteristic of empowerment. However, empirical evidence regarding the influence of power on affect is mixed, with some studies showing an absence of such effect (Smith & Bargh, 2008; Weick & Guinote, 2008) or only an influence on negative affect (NA) and not on positive (Smith & Bargh, 2008). Therefore, it is possible for power's influence on affect to be more complex than previously thought.

Overview

In sum, given the lack of research on how SD relates to affect during childhood, and potential moderators of such association, the present study aims to shed light on these research topics. This work distinguishes itself from previous studies on SD as it has never been

empirically studied during middle childhood. Complementarily, in order to explore this topic as thoroughly as possible, not only SD magnitude's impact on affect will be analyzed, but also the independent role of both actual and ideal-SRs. Furthermore, due to the relevance of specific SRs dimensions during middle childhood and the assertion that SRs are multidimensional beliefs (Harter, 2015; Silva et al., 2016), the independent role of the social and instrumental dimensions of self-beliefs on affect will be analyzed. Complementarily, as affect has long been shown to consist of two independent components (Bradburn, 1969; Diener & Emmons, 1984) - PA and NA - these will be analyzed independently. In addition, considering the deleterious effects of high SD magnitudes on affect (Barnett et al., 2017; Higgins, 1987; Moretti & Higgins, 1990), studying potential moderators of this relation is crucial, particularly when considering that both SD and affect are relatively stable during adulthood (Strauman, 1996; Watson & Walker, 1996). Consequently, this means that early interventions, based on protective moderating variables, could help to proactively prevent adverse outcomes, starting at an early age. In fact, the question being asked: "When is there an effect?" was posed by Higgins (1999, p. 1313) more than 20 years ago and not yet fully and satisfactorily answered. One variable that could possibly contribute to this answer is sense of power, reducing the expected deleterious effects of SD and ideal-self on affect. Finally, this study also adds significantly to the understanding of sense of power, as studies on power with young samples are rare and almost nonexistent (as an exception, consult: Guinote et al., 2015).

Based on the theoretical background described above, some direct associations can be hypothesized. First, it is expected that (H1) SD magnitude will predict worse affect. An important detail to consider is that the role of both dimensions of affect (PA and NA; Diener & Emmons, 1984; Watson et al., 1988) will be investigated, despite no differentiated predictions being made regarding each one of them for most analyses. That is the case due to the novelty of this study, as, at the present moment, there is no empirical or theoretical basis to

justify such predictions. Considering that the more positive actual-SRs, smaller SD magnitude becomes, it is also expected that (H2) actual-SRs will predict better affect. Logically, due to the role of ideal-SRs, where the more ambitious they are, bigger the SD magnitude, (H3) ideal-SRs scores are expected to predict worse general affect. When it comes to sense of power, (H4 and H5) it is expected to positively predict higher actual and ideal-SRs. Additionally, (H6 and H7) sense of power is expected to moderate the relation of SD magnitude, and ideal-self on affect, reducing their expected deleterious effects. In particular, (H8) relative to NA, which has been shown to be more affected by power than PA (Smith & Bargh, 2008). Moreover, considering the social and relational nature of sense of power (Anderson et al., 2012), it is hypothesized (H9) that it could moderate the impact of SD and ideal-SR's social dimension on affect in a more significant way than the instrumental dimension. The role of gender and school year will be investigated and controlled for, as gender and age differences during childhood have been consistently reported in several studies on SRs (Cole et al., 2001; Isabella & Diener, 2010; Jacobs et al., 2002). More specifically, age will be controlled resorting to the school year (third or fourth grade) which children attended at the time of the study. This decision derives from the assertion that, during childhood, school year may be more relevant for development than age itself (Cahan & Cohen, 1989; Cliffordson & Gustafsson, 2008). The role of socioeconomic status (SES) will also be investigated and controlled for, if necessary.

Method

Participants

Two hundred and thirty-six (116 female), portuguese, third and fourth grade children, ranging in age from 8-11 years (M = 9.39, SD = 0.79), took part in this study. One-hundred and twenty children (50.8%) were attending third grade at the time data was collected.

Additionally, 163 children (69.1%) were considered to have an average to high SES and 73 (30.9%) were considered to have a low SES. Finally, 161 children (68.2%) lived in a rural area, in Azores, and 71 (31.8%) lived in an urban one, in Lisbon.

Measures

Actual-self-representations - Actual-SRs were measured through the Self-Representations Questionnaire for Adolescents (SQRA; Silva et al., 2016). SRQA consists on the presentation of 21 attributes (13 positive and 8 negative) to the participants, who respond in a 1 ("I am not at all like this") to 5 ("I am exactly like this") scale to each of them. The attributes are divided into 5 dimensions (instrumental, social, emotional, intelligence and physical appearance), however, only the instrumental and social dimensions were measured. The instrumental dimension is composed of 7 attributes (untidy, organized, responsible, lazy, misbehaved, well-behaved, distracted and hard-working). The social dimension is composed of 5 attributes (nice, friendly, kind, helpful and funny). As evidenced by the previous enumerations, some of SRQA's attributes are negative (e.g., distracted). These were reverse-coded, so that higher SRQA's scores represented higher reported values on positive attributes and lower reported values on negative attributes. Alpha Chronbach's reported for the Instrumental and Social dimensions of actual-SRs, in its validation study were, .81 and .74, respectively (Silva et al., 2016) and .73 and .69 in the present sample, usually considered adequate in human research (above .65; Shelby, 2011).

Ideal-self-representations - In order to measure ideal-SRs, SRQA, described above (Silva et al., 2016), was adapted and administered. The number of questions and the attributes present were the same as the ones employed to measure actual-SRs, however, in this case, participants had to respond in a scale, ranging from 1 ("I don't want to be like this at all") to 5

("I want to be exactly like this"). The coefficient alpha reliability in this sample was .75 for the Instrumental Dimension and .70 for the Social dimension of ideal-SRs.

Self-discrepancy - SD magnitude was calculated by subtracting actual from ideal-SRs scores, a common practice (e.g., Beattie et al., 2004) when nomothetic approaches are employed to measure SD, as is the case in this study. Both actual and ideal-SRs scores were calculated by averaging the values of the answers given to each of its composing attributes, for the social and instrumental dimensions.

Affect – PA and NA were assessed through the Positive and Negative Affect Schedule for Children Shortened Version (PANAS-CSV; Ebesutani et al., 2012). Subjects are presented with 10 adjectives describing mood states and asked to rate, in a 5-point scale, ranging from 1-"Slightly or not at all" to 5-"Very much", the extent to which they had experienced it in a specified time frame. Five adjectives are relative to PA and 5 are relative to NA. Ebesutani et al (2012) reported Cronbach's Alpha for the PA and NA scales of .86 and .82, respectively. Furthermore, translated versions of this instrument, in other countries, have shown coefficient alphas around .80 (López et al., 2016; López et al., 2017; Wróbel, 2019).

In this study, a portuguese translated version of PANAS-CSV was administered. Participants were asked to rate the degree at which they had felt what was described in the specified adjectives, for the last weeks. Higher PA scores reflect better affect while higher NA scores reflect worse overall affect. General affect was calculated by reversing NA scores, because, as mentioned less NA reflects better affect. Cronbach's Alpha ranged from .67, for NA, to .79, for PA.

Sense of Power - Sense of Power was assessed by employing the Relationship-Specific Index of Personal Sense of Power (RSI; Anderson et al., 2012). This instrument consists on the

presentation of 8 statements regarding the participants sense of power, either, in a specific relationship (e.g., “I can get my mother to do what I want”), or, in general (e.g., “In my relationship with others I can get them to do what I want”), to which they answer on a scale ranging from 1 (Disagree strongly) to 7 (Agree strongly). In the present study, all statements were prefaced with: “In my relationship with my schoolmates...”. Higher scores in items 1, 3, 5 and 8 indicate a higher sense of power, while in items 2, 4, 6 and 7 (reverse-coded), higher scores indicate a lower sense of power. Individual sense of power scores were calculated by averaging the answer values in all 8 questions.

The coefficient alpha reliability for personal sense of power, in its validation study, at the generalized level was between .82 and .85 in four different adult English speaking samples (Anderson et al., 2012). RSI has already been translated to be used in multiple countries (e.g., Colombia, Indonesia and Portugal; Quintero et al., 2016; Savira, 2019; Morbey, 2017) which attests to its cross-cultural validity.

In the present study, a Portuguese translated version of the Index was utilized, the reported coefficient alpha value for that instrument was .73 in a sample of participants ranging from 10 to 18 years of age (Morbey, 2017). While the instrument used was similar to the one described above (Anderson et al., 2012), the scale was adapted and ranged from 1 (Disagree strongly) to 5 (Agree strongly), instead of 1 to 7. Coefficient Alpha was .73 in a sample of participants ranging from 10 to 18 years of age (Morbey, 2017). The coefficient alpha reliability in the present sample was .68.

Procedure

The study was conducted in various schools, in Azores and Lisbon. The choice to gather data in both rural and urban settings, derived from an attempt to study a more heterogeneous sample, which, by default, improves the generalizability of results from the present study.

Permission to carry out data collection was requested to the directors of each school. Data was gathered in third and fourth grade classrooms of these schools. Classrooms were made available by teachers, to be used for data collection. Informed consent forms were sent to all parents or legal guardians of the children, in closed envelopes and, subsequently, delivered to the school. This sample consisted of those children whose parents reported affirmative consent. SES was calculated by accessing available school records. Participants were divided into two levels, those who received any kind of support by the school (low SES) and those who didn't (average to high SES). Affirmed assent from the children was asked before the beginning of the session. They were informed that: their participation was voluntary; they could stop at any point during the session; and that their answers would be anonymous. The sessions had an approximate duration of 25 minutes. First, participants completed the socio-demographic questions, followed by the RSI (Anderson et al., 2012), the measure of sense of power. Thereafter, participants completed the SRQA (Silva et al., 2016), the measure of actual and ideal-SRs. Finally, participants answered PANAS-CSV (Ebesutani et al, 2012), the measure of affect (PA and NA).

Data Analysis

SPSS (version 26) was used to analyze the data. First, an analysis to check for the presence of extreme outliers was conducted (Wilcox, 2001). Data points outside the range between the 1st quartile - 3*IQR and the 3rd quartile + 3*IQR were considered to be extreme outliers (Ramsey & Ramsey, 2007; Rousseeuw & Hubert, 2011). Participants who produced such answers were dropped from subsequent analysis and, were, in total, 11, therefore all subsequent analysis were carried out with 225 participants and not 236 (236 - 11= 225). Secondly, an analysis of the missing data showed that around 1% of answers were missing. Considering that only missing data above 5% becomes problematic (Schafer, 1999), a single

regression imputation procedure was conducted, in order to simulate missing values (Shrive et al., 2006).

Various independent samples t-test were conducted to investigate if study variables differed significantly with gender, school year and SES, in order to assess the need to control for their role in subsequent analysis. Skewness and kurtosis were evaluated for all study variables (Chok, 2010). Skewness values ranged from -1.9 to 1.7 and kurtosis values ranged from -.6 to 4.1 which are considered acceptable values (Hair et al., 2010). Descriptive statistics (means and standard-deviations) and bivariate Pearson correlations were calculated for all study variables.

The hypotheses regarding the direct effects were tested through various (18) multiple regression analysis, which consisted of a single predictor and the necessary control sociodemographic variables. Following this step, the hypotheses regarding the impact of sense of power on actual and ideal-SRs were tested through various multiple regression analyses. Subsequently, 12 moderated multiple regressions analysis were conducted, in order to investigate the role of sense of power as a moderator of the relation between SD magnitude and ideal-SRs to affect. The need to conduct these many moderated multiple regression analyses derives from the assertion that there are 4 independent variables, when considering that both (2) SD magnitude and ideal-SRs have, each of them, 2 dimensions (2x2). And, that there are 3 outcome variables - general affect and both of its components (2x2x3 = 12). Bonferroni adjusted significance levels were calculated and used, considering the number of analysis performed. The assumptions necessary to perform multiple regression were met, for all the analysis conducted. Visual analysis of scatterplots of standardized predicted values, histograms and normal P-P plots of standardized residuals indicated that the assumptions of linearity, homoscedasticity and random and normal distribution of errors were met. Additionally, variables met the assumption of low multicollinearity, as the VIF values, across

the regressions, ranged from 1.01 to 1.30. The assumption of independent errors was also met, as Durbin-Watson values ranged from 1.60 to 1.97. All predictor variables were centered (Aiken et al., 1991).

Results

Descriptive statistics and correlation analysis

Independent samples t-tests were conducted in order to assess if socio-demographic variables were significantly related to actual-SRs, ideal-SRs, sense of power and affect, at an alpha level of .05. Regarding gender, girls showed significantly higher scores on social actual SRs (M_{girls} = 4.4, *SD* = .56; M_{boys} = 4.2, *SD* = .66, t(223) = 1.984, p = .048), social ideal SRs (M_{girls} = 4.9, *SD* = .23; M_{boys} = 4.7, *SD* = .44, t(195.111) = 3.486, p = .001) and instrumental ideal SRs (M_{girls} = 4.8, *SD* = .34; M_{boys} = 4.6, *SD* = ..49, t(165.881) = 4.077, p < .001), than boys.

Regarding SES, significant differences were found for numerous variables. High SES participants showed significantly higher scores on instrumental actual SRs (M_{high} = 4.0 *SD* = .67; M_{low} = 3.8, *SD* = .66, t(223) = 2.065, p = .040), social ideal SRs (M_{high} = 4.8 *SD* = .37; M_{low} = 4.6, *SD* = .52, t(96.522) = 1.996, p = .049), general affect (M_{high} = 4.4 *SD* = .53; M_{low} = 4.2, *SD* = .63, t(223) = 2.667, p = .008), and sense of power (M_{high} = 3.1 *SD* = .76; M_{low} = 2.8, *SD* = .75, t(189.591) = 2.381, p = .018), than did low SES participants. And, high SES participants showed significantly less NA than low SES participants (M_{high} = 1.5 *SD* = .61; M_{low} = 1.8, *SD* = .70, t(223) = 2.903, p = .004).

Regarding school year, significant differences were found for the social dimension of SRs. Fourth graders showed significantly higher scores on social actual-SRs (M_{fourth} = 4.4 *SD* = .46; M_{third} = 4.2, *SD* = .73, t(189.591) = 2.381, p = .018) and social ideal-SRs (M_{fourth} = 4.8

SD = .32; M_{third} = 4.7, *SD* = .50, t(193.809) = 2.563, p = .011), than did third graders. All the aforementioned variables were controlled for in subsequent analysis, when necessary.

Pearson correlations were conducted among all study variables for descriptive reasons and are presented in Table 1, along with their means and *SD*s.

Table 1

Pearson correlations among study variables (N = 225).

	1	2	3	4	5	6	7	8	9	10
1. Actual Social SR	–									
2. Actual Instrumental SR	.49***	–								
3. Ideal Social SR	.29***	.27***	–							
4. Ideal Instrumental SR	.18**	.21**	.56***	–						
5. Social SD	-.79***	-.39***	.08	.00	–					
6. Instrumental SD	-.42***	-.88***	-.03	.19**	.39***	–				
7. Sense of Power	.20**	.39***	.19**	.01	-.15*	-.36***	–			
8. Affect	.30***	.25***	.12	.20**	-.26***	-.17*	.16*	–		
9. Positive Affect	.37***	.13	.08	.12	-.30***	-.07	.02	.86***	–	
10. Negative Affect	-.11	-.30***	-.12	-.22**	.13	.22**	-.27***	-.82**	-.40*	–
Mean	4.29	3.96	4.74	4,76	.54	.85	3.03	4.37	4.36	4.39
SD	.62	.67	.43	.36	.56	.63	.77	.57	.72	.65

* *p-value* < .05, ** *p-value* < .01, *** *p-value* < .001

The correlational analyses (Table 1) indicate that, as actual SRs get more positive, so does general affect. Moreover, ideal SRs and affect also tend to present this pattern, which, in turn, is opposite to what was expected. SD, the composite measure of actual and ideal-SRs, on the contrary, is negatively correlated to general affect, which means that, as it increases, affect

becomes worse. Additionally, increases in sense of power tend to be associated with increases in general affect, actual and social ideal-SRs, but also with lesser magnitudes of SD and decreases in NA. The generality of these results is in line with the predictions made, except when it comes to the relationship between ideal-SR's and general affect, which was predicted to be negative. Interestingly, actual-SRs are more correlated to SD magnitude than are ideal-SRs. Indeed, social ideal-SRs are significantly correlated to social SD. Additionally, both actual and ideal-SRs, considering their mean scores, tend to be very positive, as does general affect, with all these variables presenting mean scores above 4, in scales ranging from 1 to 5, except instrumental actual-SRs with a score of 3.96. This positivity is generally consistent with the literature on these topics.

Multiple Regression Analysis

The direct effects of actual-SRs, ideal-SRs and SD magnitude on affect, measured by various multiple regression analyses are presented on Table 2. The *a priori*, Bonferroni-adjusted, significance level was .0028 (.05/18), as 18 separate multiple regressions were carried out. However, results significant at .01 level are also highlighted, due to the conservative nature of the Bonferroni-adjustment.

Regarding the hypothesized relation between actual-SRs and affect, as expected, both social and instrumental actual-SRs were found to significantly predict general affect, with β = .290 and β = .230, respectively. More specifically, social actual-SRs were found to significantly predict PA, β = .395, and instrumental actual-SRs were found to significantly inversely predict NA, β = -.278.

Regarding the hypothesized relation between ideal-SRs and affect, neither social, nor instrumental ideal-SRs were shown to significantly predict any component of affect.

Regarding the hypothesized relation between SD and affect, as expected, social SD was found to significantly inversely predict general affect, with β = -.250. More specifically, social SD was found to significantly inversely predict PA, β = -.306 and instrumental actual SD was found to significantly predict NA, β = .199.

Table 2

Multiple regression coefficients for actual-SR´s, ideal-SRs and SD predicting affect.

	Regression Models		Predictor Variables			
	F	R^2	B	SE	β	t
General Affect						
Social Actual-SR	4.63	.113**	.269	.06	.290**	4.451
Instrumental Actual-SR	10.024	.083**	.196	.055	.23**	3.545
Social Ideal-SR	2.345	.041	.122	.094	.091	1.302
Instrumental Ideal-SR	5.239	.066**	.301	.107	.19*	2.802
Social SD	5.757	.095**	-.256	.066	-.250**	-3.858
Instrumental SD	4.241	.054*	-.133	.060	-.147	-.2.227
Positive Affect						
Social Actual-SR	4.63	.152**	.461	.074	.395**	6.248
Instrumental Actual-SR	2.83	.025	.124	.072	.116	1.735
Social Ideal-SR	1.029	.018	.134	.119	.080	1.302
Instrumental Ideal-SR	2.301	.020	.284	.137	.143	2.070
Social SD	6.413	.104**	-.394	.083	-.306**	-4.747
Instrumental SD	1.133	.015	-.062	.077	-.054	-.804
Negative Affect						
Social Actual-SR	3.22	.055	-.085	.071	-.081	-1.201
Instrumental Actual-SR	13.999	.112**	-.267	.061	-.278**	-4.347
Social Ideal-SR	3.126	.054	-.110	.105	-.072	-1.041
Instrumental Ideal-SR	6.569	.055**	-.339	.120	-.189**	-2.810
Social SD	3.461	.056*	.117	.076	.102	1.536
Instrumental SD	7.127	.057**	.204	.066	.199**	3.080

* *p-value* < *.01*, **Bonferroni-adjusted significance, *p-value* < *.0028*

Additionally, to test the hypotheses that higher sense of power led to both more positive actual and ideal-SRs, 4 multiple regression analyses were conducted. As all the models featured sense of power as predictor, the models will be described, referencing the dependent variable that they aimed to predict. The model including social actual-SRs as dependent variable was significant, $F(4, 220) = 5.162$, $p = .001$, $R^2 = .086$, and sense of power was found to be a significant predictor, $\beta = .193$, $p = .004$. The model including instrumental actual-SRs as dependent variable was significant, $F(2, 222) = 20.207$, $p < .001$, $R^2 = .154$, and sense of power was found to be a significant predictor, $\beta = .374$, $p < .001$. The model including social ideal-SRs as dependent variable was significant, $F(4, 220) = 8.787$, $p < .001$, $R^2 = .138$, and sense of power was found to be a significant predictor, $\beta = .176$, $p = .007$. The model including instrumental ideal-SRs as dependent variable was significant, $F(3, 221) = 6.621$, $p < .001$, $R^2 = .082$, however, sense of power was not found to be a significant predictor, $\beta = .023$, $p = .729$. These analyses show that increases in sense of power lead to increases in actual-SRs and in social ideal-SRs. However, no association was found between sense of power and instrumental ideal-SRs.

Moderation Analysis

Next, sense of power was added to the regression models relating ideal-SRs and SD to affect, as well as the interaction terms. Sense of power was only shown to moderate the effect of the social dimension of ideal-SRs on affect. Only the results concerning these interactions will be presented here (see all moderation analyses results in appendix E). The *a priori* significance level for these analyses is a Bonferroni-adjusted alpha of .0041 (0.05/12). First, the model predicting general affect was significant, $F(6, 218) = 4.523$, $p < .001$, $R^2 = .111$, with the interaction term - social-ideal SRs*sense of power - also being significant, B = .472,

SE = .130, β = .261, t(3.631), p < .001, as shown in Fig. 1. Indeed, while increases in social ideal-SRs predict worse general affect, for low sense of power participants, for high sense of power participants, increases in social ideal-SRs predict better general affect. This supports the hypothesis that power moderates the relation between social ideal-SRs and general affect.

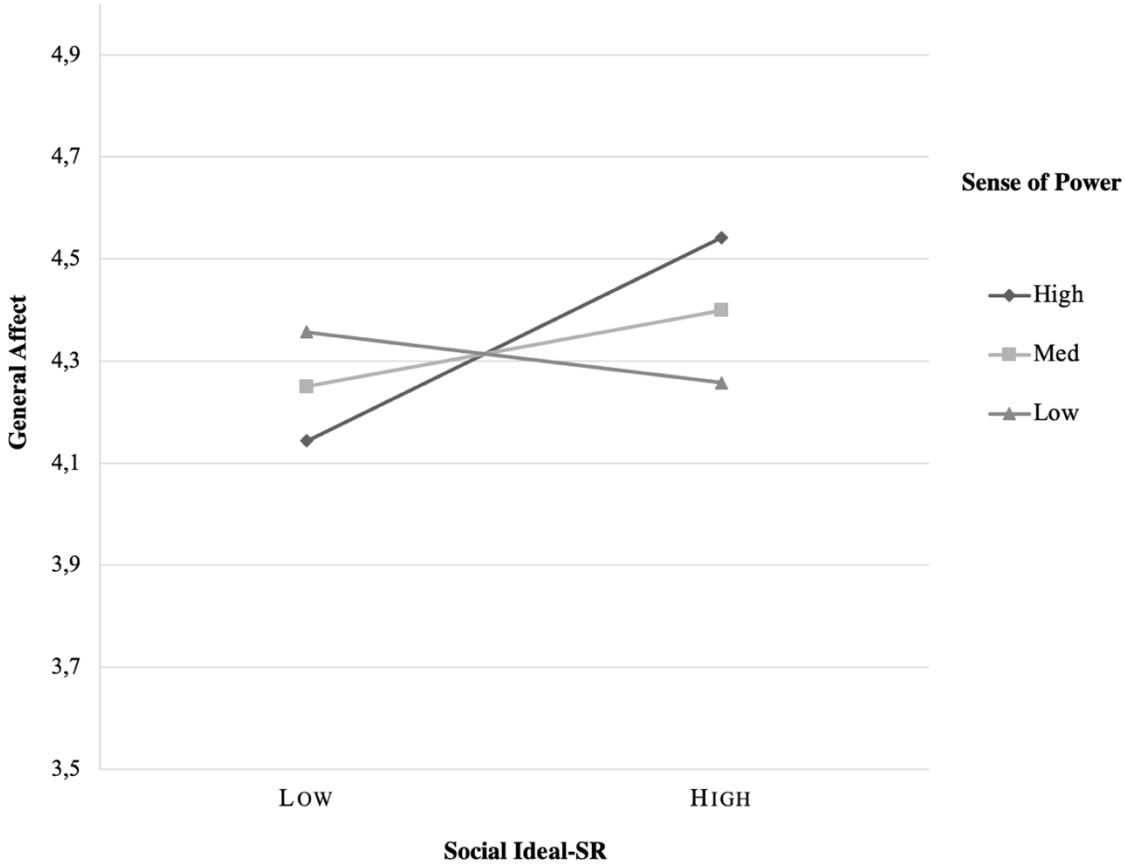

FIG. 1 Simple slopes of social ideal-SRs predicting general affect for 1 standard-deviation below the mean sense of power's score (Low), the mean sense of power's score (Med) and 1 standard-deviation above the mean sense of power's score (High).

Similarly to the previous one, the model predicting NA was also significant F(6, 218) = 6.886, p < .001, R 2 = .159, with the interaction term, also being significant, B = -.495, SE = .143, β = -.242, t(3.464), p = .001, as shown in Fig. 2. This means that, while increases in social ideal-SRs predict more NA, for low sense of power participants, for high sense of power

participants, increases in social ideal-SRs predict less NA. This supports the hypothesis that power moderates the relation between social ideal-SRs and NA, reducing its deleterious effects.

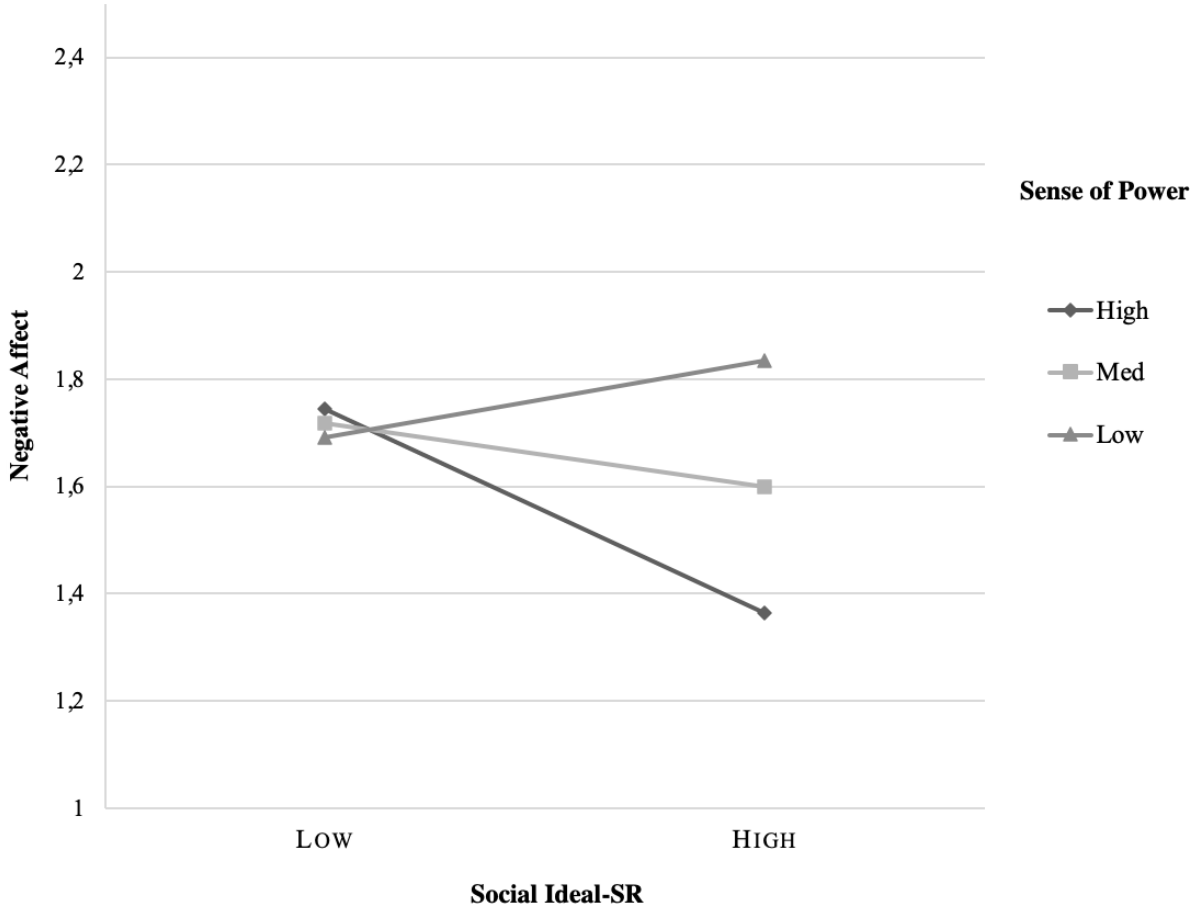

FIG. 2 Simple slopes of social ideal-SRs predicting NA for 1 standard-deviation below the mean sense of power's score (Low), the mean sense of power's score (Med) and 1 standard-deviation above the mean sense of power's score (High).

Finally, the model predicting PA was not significant, $F(6, 218) = 1.886$, $p = .084$. In sum, this means that sense of power was only found to moderate the effects of ideal social-SRs on NA, but not on PA.

Discussion

The aim of this work was dual. First, considering the lack of research involving children, on the topic of SDT, this study aimed to empirically test whether this theory's developmental assumptions held true. More specifically, to assess the relation between SD magnitude, actual and ideal-SRs and affect during middle childhood. The results relative to this goal will be discussed and interpreted first, followed by a discussion of the results relative to the second main goal of this work, the study of sense of power as moderator of the aforementioned relation between SD, ideal-SRs and affect.

The set of hypotheses relative to the developmental postulates of SDT (Higgins, 1987; 1989a) were H1, H2 and H3. H1 consisted on expecting that larger SD magnitudes would predict worse affect. H1 was supported, as multiple regression analyses showed that increases in both social and instrumental SD magnitude predicted worse general affect. With this in mind, a more detailed analysis has shown that increases in the magnitude of the social SD dimension were associated to a worsening of PA. Complementarily, increases in the instrumental dimension of SD were found to reduce the amount of NA reported by children. However, these results alone do not allow us to report that the developmental assumptions of SDT are supported. In order to do that, it is necessary to analyze the independent effects of SD's components. That analysis corresponds to H2 and H3. As a reminder, actual-SRs should have an opposite effect to SD magnitude, which means that (H2) increases in actual-SRs would predict increasingly better affect. On the other hand (H3), more positive ideal-SRs should predict worse affect. Indeed, H2 was supported by the data, as increases in actual-SRs were shown to positively influence affect. And, again, increases in the social dimension of actual-SRs were shown to improve PA, while increases in the instrumental dimension of actual-SRs were shown to reduce NA. However, H3 was not supported by the data, as the expected relationship between ideal-SRs and affect did not occur. While, at the chosen, conservative

Bonferroni-adjusted significance level, no effect was found, if a less conservative significance level was used (α =.01), instrumental ideal-SRs would have shown to significantly predict general effect, but, in the opposite way to what was expected. Which means that increases in instrumental ideal-SRs would have been found to predict better general affect and less NA. This being the case, it is possible to report that the effects of SD magnitude on affect seem to be an artifact of its composite nature.

More technically, the consideration that SD magnitude derives from the difference between ideal and actual-SRs (Mason et al., 2019) leads to the logical assertion that the measurement of the impact of SD on affect is the difference between the individual impact of ideal-SRs on affect and the impact of actual-SRs on affect. Consequently, if actual-SRs present a very positive impact on affect, while ideal-SRs present a neutral or even a slightly positive impact on affect, SD's impact will appear to be negative, however, that would be due to an outsized influence of actual-SRs on affect. In fact, this is what has occurred in this study, as SD's apparent effects are attributable to actual-SRs. All in all, the developmental postulates of SDT were not supported by the results, because increased ideal-SRs were not a cause of worsening affect and actual-SRs accounted for all the apparent effects of SD magnitude.

The assertion that the developmental postulates of SDT do not hold true, at this stage, may be a reflection of the known developmental path of SRs, during middle childhood. As mentioned, children tend to display extremely positive actual-SRs (Harter, 2012; 2015), becoming slightly more negative during middle childhood (Harter, 2008). In fact, the reported mean scores of actual and ideal-SRs denote that exact positivity. Which showcases that, although SRs are slightly more negative than they would have probably proven to be, if a younger sample was studied, the positivity of SRs is still present during middle childhood. Additionally, the extreme positivity of SRs, at this age, seems to have led to a ceiling effect on the ideal-SRs measure, characterized by tremendously elevated scores, with a mean of 4.75 on

a scale of 1 to 5. This caused generally low levels of reported SD magnitudes. In sum, the aggregate of evidence discussed so far, denotes that the SDT postulate, determining that the self-structure is set at a young age, due to temperament and early caretaker-child interactions (Higgins, 1987; 1989a), is not supported by the aggregate of results. And, that the effects of actual-SRs on affect are much more noticeable and important than the ones derived from ideal-SRs, during middle childhood.

Besides this, but still on the topic of SRs and affect, the analyses regarding the social and instrumental dimensions of the self, illustrate that social actual-SRs significantly relate to PA, while instrumental actual-SRs relate to NA. No predictions were made relative to these effects. However, these results provide an important empirical finding, consisting on the realization that different dimensions of the self, are associated to different components of affect.

The role of sense of power in the context of SRs and affect is discussed hereafter. First, the hypotheses - H4 and H5 - regarding the link between power and the positivity of both actual and ideal-SRs were generally supported. Indeed, as predicted (H4), increases in sense of power were found to predict increases in actual-SRs. This was expected due to previous evidence showing its positive influence on confidence, optimism and self-esteem (Briñol et al., 2007; Fast et al., 2009; Fast et al., 2012; See et al., 2011). Furthermore, this held true for both social and instrumental actual-SRs. However, when it comes to the association between sense of power and ideal-SRs, the results were mixed. It was expected (H5) that more positive sense of power would relate to higher ideal-SRs, as ideal-SRs have been conceptualized as superordinate personal goals (Morf & Mischel, 2012) and power has been shown to intensify motivation related to goal-seeking and approach (Guinote, 2017; Guinote & Kim, 2020). While the expected association was found for social ideal-SRs, sense of power did not significantly relate to the instrumental dimension of ideal-SRs. This could be explained by the definition of

power, generally accepted in research, which emphasizes its social-relational component (Anderson et al., 2012; Guinote, 2015). This definition was adopted in this study and, as the measure of sense of power heavily relied on social constructs, this could explain the more accentuated interplay with the social dimension of SRs than with the instrumental one.

The analyses regarding the role of sense of power as a moderator of the relation between SD and ideal-SRs, and affect, yielded much more circumscribed effects than initially predicted (H6 and H7). First, concerning H6, it was expected that sense of power acted as a moderator of the relation between SD magnitude and affect. However, no moderation effect was found regarding the relation of any dimension of SD magnitude on any component of affect. As already discussed, this could derive from the composite nature of SD magnitude, which does not allow for a fine-grained analysis of its influences and implications. Secondly, concerning H7, it was expected that sense of power acted as a moderator of the relation between ideal-SRs and affect. Additionally, the role of sense of power was expected (H8) to be more accentuated when it came to NA, when compared to PA, and also (H9), more accentuated when it came the social dimension of SRs when compared to the instrumental dimension. The results partially support these hypotheses. Because, while sense of power was found to moderate the relation between social ideal-SRs and affect, it did not act as a moderator when it came to the instrumental dimension of ideal-SRs. Although this is congruent with H9, as it was expected that sense of power's role was more noticeable for the social dimension of ideal-SRs, sense of power was also expected to moderate the relation between instrumental-SRs and affect, which was not the case. Finally, moderation effects of sense of power were found for the relation of social ideal-SRs with general and NA.

However, although sense of power was found to moderate these relations, it does not match exactly what was expected, because ideal-SRs were expected to have harmfully predicted affect, which, as already discussed (H3), was not the case. Indeed, while for high

sense of power participants, as ideal-SRs increased, NA decreased, for low sense of power participants, NA remained relatively stable, despite increases in ideal-SRs (Fig. 2). In order for the results to perfectly match the predictions made, the following would have to be true: for low sense of power participants, NA would have had to significantly increase with increases in ideal-SRs, while for high sense of power participants, it would have had to remain relatively stable, with increases in ideal-SRs. This would support SDT's prediction that increases in ideal-SRs lead to worse affect, which, again, was not the case. Yet, it is possible, with age, as actual-SRs become more negative and, consequently, reported SD magnitudes increase, that sense of power will act as predicted. Acting as a protective factor, negating the upcoming deleterious effects of ideal-SRs. Therefore, the importance of sense of power in the context of SDT seems to have been confirmed.

The found pattern of results has implications for diverse fields of research. First, it adds to the research concerning SDT. It calls into question its developmental postulates (Higgins, 1987; 1989a), for no direct deleterious effects of ideal-SRs has been found. And, because the size of SD magnitudes at this stage are still too small to be predictive of future SD magnitudes, it is not likely that the self-structure is set and defined as early as proposed by SDT, at least not until middle childhood. Admitting that, elevated SD magnitudes have repeatedly shown to produce deleterious effects, as early as adolescence (Kupersmidt et al., 1999), as well as evidences pointing to its stability during adulthood (Strauman, 1996), and considering failed attempts to reduce it (Crane et al., 2008), this finding could be extremely relevant for future interventions. The success of future attempts to reduce SD magnitude may be determined by the age at which these are carried out. Speculatively, it is possible that carrying out interventions at this developmental stage could produce more successful results, as the self-structure may yet be malleable enough to allow for considerable change. Moreover, these findings are also relevant for SDT from a methodological perspective. Considering that it was

the independent analysis of the components of SD that allowed to accurately ascertain the real effects at play, it is strongly recommended that studies conducted in the future, independently measure actual and ideal-SRs when studying SD.

Additionally, the finding that actual-SRs are significantly more predictive of affect than ideal-SRs, during middle childhood, adds to the SRs developmental literature, as relatively few published studies have empirically tested these variables (actual and ideal-SRs) during this developmental stage. Furthermore, the findings of differentiated associations of specific dimensions of SRs to specific components of affect, not only provides novel empirical evidence, but also highlights the importance of a multidimensional view of the self, along with the importance of basing empirical studies on multidimensional instruments and measures, such as the SRQA (Silva et al., 2016). Despite the fact that, in this study, only social and instrumental dimensions have been measured, there could be value in measuring more SR's dimensions in future studies.

The results concerning sense of power as a moderator have some interesting implications. First, the finding that sense of power only acts as a moderator when it comes to the social dimension of ideal-SRs on the NA, may significantly contribute to the understanding of this variable. That is the case because, in this study, colloquially speaking, sense of power didn't seem to add positive affective "things". Instead, it seems to have lessened negative affective components. Sense of power has already been shown to increase some variables (Briñol et al., 2007; Fast et al., 2009; Fast et al., 2012; See et al., 2011) that could reduce or protect from hopelessness (Abela, 2002; Yang & Clum, 1994) and to reduce other variables, such as rumination (Karremans & Smith, 2010), which are positively associated to NA (Kirkegaard Thomsen, 2006). Moreover, this is congruent with some previous empirical evidence (Smith & Bargh, 2008), which showed power to influence NA but not PA. Taking this into consideration, it is proposed that sense of power primarily interacts with NA and not

PA. This is a novel proposition that directly contradicts Keltner et al's (2003) theoretical proposal, which defends that power should be associated with PA. However, this theoretical position is disputed, not only by other theoretical proposals (Guinote, 2017), but also, by prior empirical data (Smith & Bargh, 2008; Weick & Guinote, 2008), although it has not been proposed that sense of power directly reduces NA.

In practical terms, these results also highlight the importance of a variable that is seldom associated with children, only having been studied once, in such an age group (Guinote et al., 2015). Particularly, when recent evidence pointing to the tendency of adults to infrahumanize children (Santos, 2017) is taken into consideration. Furthermore, remembering reported difficulties in reducing SD magnitude (Crane et al., 2008) and its already discussed deleterious effects (Barnett et al., 2017), the need of moderating variables that could attenuate these effects cannot be understated. Therefore, it would be interesting, in the future, to conduct interventions attempting to moderate SD's deleterious effects. And, as evidenced by this study, one of the moderating variables to be considered would have to be, necessarily, sense of power.

Despite the discussed implications, the limitations of this study and future recommendations need to be addressed. First, a correlational paradigm was employed, which does not allow to determine causal relations between variables. Therefore, in the future, it would prove useful to employ experimental or longitudinal paradigms, to further understand the associations between the studied variables. Secondly, as this investigation was conducted in Portugal, validated instruments, measuring some of the variables studied, were not available at the time it was conducted (SRQA is an exception). While, as attested, these measures have shown acceptable cross-cultural reliability, however that does not necessarily allow researchers to infer their validity in other countries. With this in mind, it is possible that the instruments used did not accurately measure the desired variables. While replication studies are always important, in this case, due to the previously described limitation, it is recommended that

replication attempts, which rely on the instruments utilized in this study, must do so in countries where these have already been validated or proceed to validation studies before employing them. Alternatively, other instruments aiming to measure similar constructs could also be employed, which could serve to attest the conceptual validity of the present study. Still on the topic of the instruments used, acknowledging their self-report nature, the results found may be a consequence of response biases. Especially, considering that sense of power has been shown to increase the tendency to act, in general (Galinsky et al., 2003), which could lead to more extreme responses, and, consequently, to apparent effects of sense of power. However, this is unlikely to be the case, as this explanation is not congruent with the results of the moderation analyses. Additionally, the generalizability of these results could be limited to specific age and cultural groups. Concerning age, as this study was conducted with children, conclusions about sense of power, may not hold true for adults. This is not a problem for SDT related results, as one of the main goals of this work was, exactly, to explore an existing gap in SDT literature. Concerning culture, although an effort was made to gather data from both rural and urban areas, sense of power has shown to be sensitive to cultural differences (Almeida, 2019). This, again, attests to the need of replication, ideally, resorting to culturally diversified samples.

Future studies on SDT should focus on better understanding its developmental path. Particularly, the period between late childhood and adolescence should prove to be an important stage when it comes to SD impacts on affect. This, considering that young adults already show negative effects of elevated SD magnitudes (Strauman, 1996) and that during middle childhood this is not the case. Therefore, it is probable that the genesis of these effects takes place between late childhood and adolescence. Understanding the etiology of SD magnitudes influence on affect could prove crucial to reduce its, widely reported, deleterious impacts, which, again, attests to the need to employ experimental and longitudinal methodologies.

Future studies on power should aim to resolve some lingering questions regarding its effects. There is still a lot to be known and understood about the impacts of sense of power on affect, especially, considering competing theoretical proposals that do not agree on its role (Guinote, 2017; Keltner et al., 2003). Also, considering aforementioned cultural differences regarding power (Almeida, 2019), more studies should be conducted in order to understand its variant and invariant components. Moreover, the contribution of studying power in children could prove invaluable, as it would allow researchers to probe the role of sense of power, at a stage where socialization processes may be yet to produce significant cultural differences concerning power. Furthermore, power literature could benefit from the development of an experimental paradigm that allows to experimentally manipulate children's sense of power, in order to investigate its potential causal influences.

In sum, this work has demonstrated that the association between SRs and affect is rather complex, even during middle childhood. SDT's developmental postulates were called into question, while the importance of actual-SRs was highlighted, considering its association with affect. The direct link of ideal-SRs with affect at this stage seems to be negligible. However, potential moderators of this relation cannot be ignored, neither can its complex specificities. In fact, this study demonstrated that sense of power acts as a powerful moderator of social ideal-SRs on NA. Finally, it is desired that the aggregate of empirical evidence described in this paper can influence future research and, equally important, it is desired that it may inform future interventions that aim to improve the affective state of children and, maybe even, adults.

Finally, this work delved into rather pervasive topics. SRs, affect and power all impact our lives in a significant manner. Comparisons to idealized selves are commonplace. Most people have experienced self-doubts and second-guessing. Empirical evidence clearly highlights the harmful impacts of such idealized comparisons, and, from personal experience, these comparisons may indeed hold a strikingly negative influence. However, a personal belief

that establishing ambitious personal goals could actually be psychologically beneficial, if people possessed the tools not to succumb to its detrimental effects, was one of the reasons which led me to conduct this study. Maybe, just maybe, I thought, before embarking on this journey, empowering children could help them. Maybe empowering people could help them to cope with their ambitious goals. And, to the extent that epistemological caution allows me to produce any meaningful concluding remarks, I can say that these results provide preliminary support for the hypothesizes I just described. And, at last, that giving power to the people, does not necessarily imply a societal revolution, but, that it may actually be a way to potentiate and help their active search for internally determined superordinate goals.

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Appendix A

Version of the Self-Representations Questionnaire for Adolescents (SRQA) used to measure actual-self-representations.

Nas linhas que se seguem encontras um conjunto de palavras. Indica, por favor, até que ponto consideras que cada palavra te descreve de 1 - "Não sou nada assim" a 5 – "Sou exatamente assim", assinalando a tua resposta com um circulo no número correspondente. Vê a escala em baixo para ser mais fácil.

1 Não sou nada assim	2 Sou um pouco assim	3 Sou mais ou menos assim	4 Sou muito assim	5 Sou exatamente assim

Eu sou...

Bom (S)	1	2	3	4	5
Responsável (I)	1	2	3	4	5
Mal-comportado (I)	1	2	3	4	5
Prestável (ajudo) (I)	1	2	3	4	5
Preguiçoso (I)	1	2	3	4	5
Bem-comportado (I)	1	2	3	4	5
Organizado (I)	1	2	3	4	5
Desarrumado (I)	1	2	3	4	5
Divertido (S)	1	2	3	4	5
Simpático (S)	1	2	3	4	5
Trabalhador (S)	1	2	3	4	5
Amigo (S)	1	2	3	4	5
Distraído (I)	1	2	3	4	5

Appendix B

Version of the Self-Representations Questionnaire for Adolescents (SRQA) used to measure ideal-self-representations.

Nas linhas que se seguem encontras um conjunto de palavras. Indica, por favor, até que ponto consideras que cada palavra descreve como gostarias de ser, de 1 - "Não gostava de ser nada assim" a 5– "Gostava de ser exatamente assim", assinalando a tua resposta com um circulo no número correspondente. Vê a escala em baixo para ser mais fácil.

1 Não gostava de ser nada assim	2 Gostava de ser um pouco assim	3 Gostava de ser mais ou menos assim	4 Gostava de ser muito assim	5 Gostava de ser exatamente assim

Eu gostava de ser...

Bom (S)	1	2	3	4	5
Responsável (I)	1	2	3	4	5
Mal-comportado (I)	1	2	3	4	5
Prestável (ajudo) (I)	1	2	3	4	5
Preguiçoso (I)	1	2	3	4	5
Bem-comportado (I)	1	2	3	4	5
Organizado (I)	1	2	3	4	5
Desarrumado (I)	1	2	3	4	5
Divertido (S)	1	2	3	4	5
Simpático (S)	1	2	3	4	5
Trabalhador (S)	1	2	3	4	5
Amigo (S)	1	2	3	4	5
Distraído (I)	1	2	3	4	5

Appendix C

Version of the Positive and Negative Affect Schedule for Children Shortened Version (PANAS-CSV) used to measure positive and negative affect.

Agora passamos a apresentar-te um conjunto de palavras que descrevem diferentes sentimentos e emoções. Lê cada uma das palavras e coloca um círculo no número que melhor se adequa ao que sentiste durante as últimas semanas.

Escala: (1) Muito pouco (2) Um pouco ou nada (3) Moderadamente (4) Bastante (5) Extremamente

Indica em que medida te sentes desta forma:

	Muito pouco	Um pouco ou nada	Moderadamente	Bastante	Extremamente
Alegre	1	2	3	4	5
Triste	1	2	3	4	5
Bem-disposto	1	2	3	4	5
Amedrontado	1	2	3	4	5
Feliz	1	2	3	4	5
Receoso	1	2	3	4	5
Animado	1	2	3	4	5
Furioso	1	2	3	4	5
Orgulhoso	1	2	3	4	5
Infeliz	1	2	3	4	5

Appendix D

Version of the Relationship-Specific Index of Personal Sense of Power (RSI) used to measure sense of power.

Queremos saber um pouco mais acerca de ti e das tuas relações com os colegas da escola. Em baixo estão várias afirmações. Pensando em ti, indica em que medida cada uma destas afirmações é verdadeira, em que 1 significa "não concordo nada" e 5 significa "concordo muito". Faz um círculo em torno de um número, de 1 a 5, para nos dizeres o que melhor representa a forma como te relacionas com os outros

Na minha relação com os meus colegas	Discordo muito	Discordo	Nem concordo nem discordo	Concordo	Concordo muito
Eu consigo que eles oiçam o que eu digo	1	2	3	4	5
Os meus desejos não são tidos em conta	1	2	3	4	5
Eu consigo que eles façam o que eu quero	1	2	3	4	5
Mesmo que expresse as minhas opiniões, elas não têm muita influência	1	2	3	4	5
Acho que tenho muito poder	1	2	3	4	5
As minhas ideias e opiniões são muitas vezes ignoradas	1	2	3	4	5
Mesmo quando tento, não sou capaz de fazer com que as coisas corram à minha maneira	1	2	3	4	5
Se quiser, sou eu que tomo as decisões	1	2	3	4	5

Appendix E

Table showcasing all moderated multiple regression analysis performed, with sense of power as a moderator.

	Regression Models		Interaction terms			
	F	R^2	B	SE	β	t
General Affect						
Social Ideal-SR	4.523	.111**	.472	.130	.261**	3.631
Instrumental Ideal-SR	4.219	.088**	.141	.148	.067	.958
Social SD	6.932	.112**	-.143	.094	-.104	-1.516
Instrumental SD	3.555	.061*	-.031	.071	-.029	-.441
Positive Affect						
Social Ideal-SR	1.886	.049	.449	.169	197*	2.652
Instrumental Ideal-SR	1.282	.028	.020	.192	.007	.102
Social SD	6.682	.108**	-.153	.119	-.088	-1.284
Instrumental SD	1.834	.032	-.180	.091	-.134	-1.979
Negative Affect						
Social Ideal-SR	6.886	.159**	-.495	.143	-.242**	-3.464
Instrumental Ideal-SR	7.867	.152**	-.263	.161	-.110	-1.636
Social SD	6.485	.105**	.133	.107	.086	1.244
Instrumental SD	7.338	.118**	-.117	.078	-.097	-1.504

* *p-value* < .01, **Bonferroni-adjusted significance, *p-value* < .0041